New Methods for the Chemical Expansion of Hematopoietic Stem and Progenitor Cells

Grant Award Details

New Methods for the Chemical Expansion of Hematopoietic Stem and Progenitor Cells

Grant Type: Inception - Discovery Stage Research Projects

Grant Number: DISC1-08737

Project Objective: To study the mechanism by which eupalinilide E expands hematopoietic stem cells, and to discover new methods for the chemical expansion of hematopoietic stem and progenitor cells.

Investigator:

Name:	Dionicio Siegel
Institution:	University of California, San Diego
Type:	PI

Disease Focus: Blood Disorders

Human Stem Cell Use: Adult Stem Cell

Award Value: $232,200

Status: Active

Grant Application Details

Application Title: New Methods for the Chemical Expansion of Hematopoietic Stem and Progenitor Cells

Public Abstract:	**Research Objective** We will develop a new agent that can increase the production of hematopoietic stem and progenitor cells and determine how the compound functions **Impact** We aim to develop a method to achieve the highest fold expansion of hematopoietic stem cells from a single unit of cord blood achieved to date increasing the supply of these clinically relevant cells **Major Proposed Activities** • We will identify the biological target(s) of our novel compound that promotes expansion and inhibit differentiation • We will develop conditions using existing agents for expansion in combination with our new compound to maximize the expansion of hematopoietic stem and progenitor cells from cord blood
Statement of Benefit to California:	We aim to develop a cost effective, cryopreserved source of hematopoietic stem cells by providing an expansive source of produced through the expansion of cord blood using well defined agents. This would provide a widely available, economically adjusted product for widespread use in California and beyond.
